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AUTOMOTIVE INDUSTRIES

SEPTEMBER 1987

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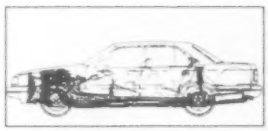

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Only a Phone Call Away

by Joseph M. Callahan

Will the telephone ever become as popular in cars as the automatic transmission? Most telephone industry people say this won't happen, but it's a possibility, considering the technology and the high volume economics now evolving in the mobile telephone industry.

One of those reasonably confident about the growth in mobile telephones in this country is Charlie Speight, operations manager of the Cellular Division of ARA Mfg. Co., a producer of many auto accessories. The company is headquartered in Grand Prarie, TX.

Speight and other observers of the mobile telephone business anticipate rather spectacular growth in the "marriage" of the car and the telephone. The reason: The technology is already largely available that will permit cost reductions of up to two thirds in the mobile phones and, more importantly, in the mobile service charges by 1995.

The two major technological advances expected are the fully digital cellular telephone service systems and the first Land Mobile Communications Satellite (LMCS).

The shift from the present analog to digital technology will permit adoption of multiplexing, message compression and probably a couple other advances which will make possible the transmission of four-to-six simultaneous conversations on a single mobile radio channel. This, unfortunately, will also obsolete the present analog cellular telephones.

Despite the additional cost of the new digital equipment for the telephone service providers, it's estimated that monthly service charges will decline from the present $150 for the fairly heavy business user (250 minutes a month) to $50 in eight years.

The digital technology will also result in smaller and more efficient mobile telephones, enabling them to operate on less power for longer periods of time. Telephones as small as Dick Tracey's watch are on the horizon.

This technology and other advances will also permit estimated reductions up to 67% in the "real" retail price of mobile telephones by 1995. This would mean a retail price of $400 to $500 for a phone, compared to the present $1200 to $1800.

Mobile Myriad

The LMCS for transmitting mobile telephone signals will make possible the use of cellular telephones in every city in the country, greatly increasing the demand for mobile telephones and service. Yet cellular phone service is now only available in 130 US markets.

Yet the nationwide use of cellular service will be limited to cities with enough potential business to justify the investments needed for the cell sites where the calls are completed.

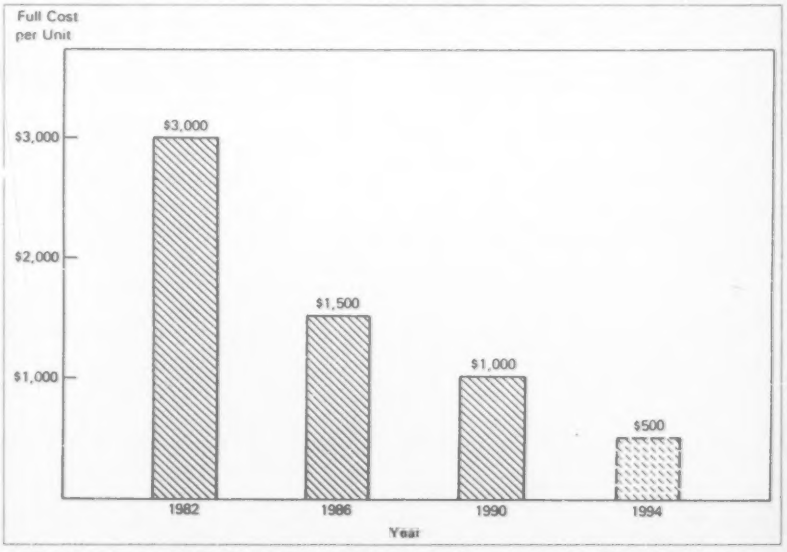
The LCMS would not directly impact the other two mobile telephone systems in this country. These are the IMTS (Improved Mobile Telephone Service) which began in 1945 and the SMR (Specialized Mobile Radio) system. These two systems will probably continue operating, although the cellular system is expected to be the dominant system.

Speight also said that several spin-off technologies are already here or are coming along that will greatly increase the value of the mobile telephone to both business and private users. Now available in many markets is an "electronic mail box" that will accept messages when the mobile phone owner can't take car calls.

When the driver returns to his car, he'll find a little indicator on his telephone display that will simply say "call." By calling the voice mail box, the driver can retrieve his calls. This saves a great deal of time and eliminates the "phone tag" that plagues many people.

ARA and other mobile telephone firms are now offering voice recognition telephone systems that enable the user to "command" his telephone to dial a couple dozen places and individuals. These systems usually have a microphone built into the phone cradle, so the motorist can complete the entire call without taking his hands from the steering wheel.

Finally, many cellular telephone systems already have the capability of transmitting data over a mobile phone. Speight said the use of this capability is bound to increase, especially vehicles that need to transmit data. AT



Forecast for cellular telephone units, assuming production-justified prices.